SANTA CRUZ BIOTECHNOLOGY, INC.

Rab11-FIP3 (6H6): sc-517043

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The Power to Question

BACKGROUND

The Ras superfamily of GTPases can be subdivided into the Ras, Rho/Rac, Sar, Rab, Arf, Rap and Ran subfamilies, all of which control multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. Members of the Ras protein superfamily are regulated by a variety of GTPase-interaction proteins that control GTPase function. Rab11-FIP3 (Rab11 family-interacting protein 3), also known as Eferin, is a 756 amino acid GTPase-regulating protein that contains 2 EF-hand domains and localizes to recycling endosomes. One of several members of a family of Rab-interacting proteins, Rab11-FIP3 forms a heterooligomeric complex with Rab11-FIP4 and, once in this complex, interacts with and regulates the function of Rab 11A, Rab 11B and Rab 25. Additionally, Rab11-FIP3 is thought to play a role in vesicle docking at the midbody during cytokinesis and may be crucial for maintaining the structural integrity of the endosomal recycling compartment.

REFERENCES

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3. Wallace, D.M., et al. 2002. Rab11-FIP4 interacts with Rab11 in a GTP-dependent manner and its overexpression condenses the Rab11 positive compartment in HeLa cells. Biochem. Biophys. Res. Commun. 299: 770-779.
4. Horgan, C.P., et al. 2004. Rab11-FIP3 localises to a Rab11-positive pericentrosomal compartment during interphase and to the cleavage furrow during cytokinesis. Biochem. Biophys. Res. Commun. 319: 83-94.
5. Fielding, A.B., et al. 2005. Rab11-FIP3 and FIP4 interact with Arf6 and the exocyst to control membrane traffic in cytokinesis. EMBO J. 24: 3389-3399.
6. Wilson, G.M., et al. 2005. The FIP3-Rab11 protein complex regulates recycling endosome targeting to the cleavage furrow during late cytokinesis. Mol. Biol. Cell 16: 849-860.
7. Shiba, T., et al. 2006. Structural basis for Rab11-dependent membrane recruitment of a family of Rab11-interacting protein 3 (FIP3)/Arfophilin-1. Proc. Natl. Acad. Sci. USA 103: 15416-15421.
8. Schonteich, E., et al. 2007. Molecular characterization of Rab11-FIP3 binding to ARF GTPases. Eur. J. Cell Biol. 86: 417-431.
9. Horgan, C.P., et al. 2007. Rab11-FIP3 is critical for the structural integrity of the endosomal recycling compartment. Traffic 8: 414-430.

CHROMOSOMAL LOCATION

Genetic locus: RAB11FIP3 (human) mapping to 16p13.3; Rab11fip3 (mouse) mapping to 17 A3.3.

SOURCE

Rab11-FIP3 (6H6) is a mouse monoclonal antibody raised against amino acids 655-754 representing partial length Rab11-FIP3 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rab11-FIP3 (6H6) is recommended for detection of Rab11-FIP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

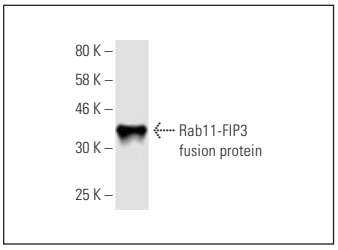
Suitable for use as control antibody for Rab11-FIP3 siRNA (h): sc-93428, Rab11-FIP3 siRNA (m): sc-152662, Rab11-FIP3 shRNA Plasmid (h): sc-93428-SH, Rab11-FIP3 shRNA Plasmid (m): sc-152662-SH, Rab11-FIP3 shRNA (h) Lentiviral Particles: sc-93428-V and Rab11-FIP3 shRNA (m) Lentiviral Particles: sc-152662-V.

Molecular Weight of Rab11-FIP3: 82 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Rab11-FIP3 (6H6): sc-517043. Western blot analysis of human recombinant Rab11-FIP3 fusion protein.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.